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SEQUENCE LISTING

<110> Istituto Superiore di Sanità
ENSOLI, Barbara

<120> HIV-1 Tat, or derivatives thereof, alone or in combination, for prophylactic and therapeutic vaccination against AIDS, tumors and related syndromes

<130> 1354PTWO

<150> RM97A000743

<151> 1997-12-01

<160> 36

<170> PatentIn version 3.1

<210> 1

<211> 261

<212> DNA

<213> Aids-associated retrovirus

<220>

<221> CDS

<222> (1)..(261)

<223> name: wt tat

<400> 1

atg gag cca gta gat cct aga cta gag ccc tgg aag cat cca gga agt 48
Met Glu Pro Val Asp Pro Arg Leu Glu Pro Trp Lys His Pro Gly Ser
1 5 10 15

cag cct aaa act gct tgt acc aat tgc tat tgt aaa aag tgt tgc ttt 96
Gln Pro Lys Thr Ala Cys Thr Asn Cys Tyr Cys Lys Lys Cys Cys Phe
20 25 30

cat tgc caa gtt tgt ttc ata aca aaa gcc tta ggc atc tcc tat ggc 144
His Cys Gln Val Cys Phe Ile Thr Lys Ala Leu Gly Ile Ser Tyr Gly
35 40 45

agg aag aag cgg aga cag cga cga aga cct cct caa ggc agt cag act 192
Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Gln Gly Ser Gln Thr
50 55 60

cat caa gtt tct cta tca aag cag ccc acc tcc caa tcc cga ggg gac 240
His Gln Val Ser Leu Ser Lys Gln Pro Thr Ser Gln Ser Arg Gly Asp
65 70 75 80

ccg aca ggc ccg aag gaa tag 261
Pro Thr Gly Pro Lys Glu
85

<210> 2

<211> 86

<212> PRT

<213> Aids-associated retrovirus

<400> 2

Met Glu Pro Val Asp Pro Arg Leu Glu Pro Trp Lys His Pro Gly Ser
1 5 10 15

Gln Pro Lys Thr Ala Cys Thr Asn Cys Tyr Cys Lys Lys Cys Cys Phe
20 25 30

His Cys Gln Val Cys Phe Ile Thr Lys Ala Leu Gly Ile Ser Tyr Gly
35 40 45

Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Gln Gly Ser Gln Thr
50 55 60

His Gln Val Ser Leu Ser Lys Gln Pro Thr Ser Gln Ser Arg Gly Asp
65 70 75 80

Pro Thr Gly Pro Lys Glu
85

<210> 3

<211> 261

<212> DNA

<213> Aids-associated retrovirus

<220>

<221> CDS

<222> (1)..(261)

<223> name: Cys22 tat

<400> 3

atg gag cca gta gat cct aga cta gag ccc tgg aag cat cca gga agt 48
Met Glu Pro Val Asp Pro Arg Leu Glu Pro Trp Lys His Pro Gly Ser
1 5 10 15

cag cct aaa act gct ggt acc aat tgc tat tgt aaa aag tgt tgc ttt 96
Gln Pro Lys Thr Ala Gly Thr Asn Cys Tyr Cys Lys Lys Cys Cys Phe
20 25 30

cat tgc caa gtt tgt ttc ata aca aaa gcc tta ggc atc tcc tat ggc 144
His Cys Gln Val Cys Phe Ile Thr Lys Ala Leu Gly Ile Ser Tyr Gly
35 40 45

agg aag aag cgg aga cag cga cga aga cct cct caa ggc agt cag act 192
Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Gln Gly Ser Gln Thr
50 55 60

cat caa gtt tct cta tca aag cag ccc acc tcc caa tcc cga ggg gac 240
 His Gln Val Ser Leu Ser Lys Gln Pro Thr Ser Gln Ser Arg Gly Asp
 65 70 75 80

ccg aca ggc ccg aag gaa tag 261
 Pro Thr Gly Pro Lys Glu
 85

<210> 4
 <211> 86
 <212> PRT
 <213> Aids-associated retrovirus
 <400> 4

Met Glu Pro Val Asp Pro Arg Leu Glu Pro Trp Lys His Pro Gly Ser
 1 5 10 15

Gln Pro Lys Thr Ala Gly Thr Asn Cys Tyr Cys Lys Lys Cys Cys Phe
 20 25 30

His Cys Gln Val Cys Phe Ile Thr Lys Ala Leu Gly Ile Ser Tyr Gly
 35 40 45

Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Gln Gly Ser Gln Thr
 50 55 60

His Gln Val Ser Leu Ser Lys Gln Pro Thr Ser Gln Ser Arg Gly Asp
 65 70 75 80

Pro Thr Gly Pro Lys Glu
 85

<210> 5
 <211> 261
 <212> DNA
 <213> Aids-associated retrovirus

<220>
 <221> CDS
 <222> (1)..(261)
 <223> name: Lys41 tat

<400> 5
 atg gag cca gta gat cct aga cta gag ccc tgg aag cat cca gga agt 48
 Met Glu Pro Val Asp Pro Arg Leu Glu Pro Trp Lys His Pro Gly Ser
 1 5 10 15

cag cct aaa act gct tgt acc aat tgc tat tgt aaa aag tgt tgc ttt 96
 Gln Pro Lys Thr Ala Cys Thr Asn Cys Tyr Cys Lys Lys Cys Cys Phe
 20 25 30
 cat tgc caa gtt tgt ttc ata aca acc gcc tta ggc atc tcc tat ggc 144
 His Cys Gln Val Cys Phe Ile Thr Thr Ala Leu Gly Ile Ser Tyr Gly
 35 40 45
 agg aag aag cgg aga cag cga cga aga cct cct caa ggc agt cag act 192
 Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Gln Gly Ser Gln Thr
 50 55 60
 cat caa gtt tct cta tca aag cag ccc acc tcc caa tcc cga ggg gac 240
 His Gln Val Ser Leu Ser Lys Gln Pro Thr Ser Gln Ser Arg Gly Asp
 65 70 75 80
 ccg aca ggc ccg aag gaa tag 261
 Pro Thr Gly Pro Lys Glu
 85

<210> 6
 <211> 86
 <212> PRT
 <213> Aids-associated retrovirus
 <400> 6

Met Glu Pro Val Asp Pro Arg Leu Glu Pro Trp Lys His Pro Gly Ser
 1 5 10 15
 Gln Pro Lys Thr Ala Cys Thr Asn Cys Tyr Cys Lys Lys Cys Cys Phe
 20 25 30
 His Cys Gln Val Cys Phe Ile Thr Thr Ala Leu Gly Ile Ser Tyr Gly
 35 40 45
 Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Gln Gly Ser Gln Thr
 50 55 60
 His Gln Val Ser Leu Ser Lys Gln Pro Thr Ser Gln Ser Arg Gly Asp
 65 70 75 80
 Pro Thr Gly Pro Lys Glu
 85

<210> 7
 <211> 252
 <212> DNA

<213> Aids-associated retrovirus

<220>

<221> CDS

<222> (1)..(252)

<223> name: RGD tat

<400> 7

atg gag cca gta gat cct aga cta gag ccc tgg aag cat cca gga agt 48
 Met Glu Pro Val Asp Pro Arg Leu Glu Pro Trp Lys His Pro Gly Ser
 1 5 10 15

cag cct aaa act gct tgt acc aat tgc tat tgt aaa aag tgt tgc ttt 96
 Gln Pro Lys Thr Ala Cys Thr Asn Cys Tyr Cys Lys Lys Cys Cys Phe
 20 25 30

cat tgc caa gtt tgt ttc ata aca aaa gcc tta ggc atc tcc tat ggc 144
 His Cys Gln Val Cys Phe Ile Thr Lys Ala Leu Gly Ile Ser Tyr Gly
 35 40 45

agg aag aag cgg aga cag cga cga aga cct cct caa ggc agt cag act 192
 Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Gln Gly Ser Gln Thr
 50 55 60

cat caa gtt tct cta tca aag cag ccc acc tcc caa tcc ccg aca ggc 240
 His Gln Val Ser Leu Ser Lys Gln Pro Thr Ser Gln Ser Pro Thr Gly
 65 70 75 80

ccg aag gaa tag 252
 Pro Lys Glu

<210> 8

<211> 83

<212> PRT

<213> Aids-associated retrovirus

<400> 8

Met Glu Pro Val Asp Pro Arg Leu Glu Pro Trp Lys His Pro Gly Ser
 1 5 10 15

Gln Pro Lys Thr Ala Cys Thr Asn Cys Tyr Cys Lys Lys Cys Cys Phe
 20 25 30

His Cys Gln Val Cys Phe Ile Thr Lys Ala Leu Gly Ile Ser Tyr Gly
 35 40 45

Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Gln Gly Ser Gln Thr
 50 55 60

His Gln Val Ser Leu Ser Lys Gln Pro Thr Ser Gln Ser Pro Thr Gly
65 70 75 80

Pro Lys Glu

<210> 9
<211> 252
<212> DNA
<213> Aids-associated retrovirus

<220>
<221> CDS
<222> (1)..(252)
<223> name: Lys 41 RGD

<400> 9
atg gag cca gta gat cct aga cta gag ccc tgg aag cat cca gga agt 48
Met Glu Pro Val Asp Pro Arg Leu Glu Pro Trp Lys His Pro Gly Ser
1 5 10 15

cag cct aaa act gct tgt acc aat tgc tat tgt aaa aag tgt tgc ttt 96
Gln Pro Lys Thr Ala Cys Thr Asn Cys Tyr Cys Lys Lys Cys Cys Phe
20 25 30

cat tgc caa gtt tgt ttc ata aca acc gcc tta ggc atc tcc tat ggc 144
His Cys Gln Val Cys Phe Ile Thr Thr Ala Leu Gly Ile Ser Tyr Gly
35 40 45

agg aag aag cgg aga cag cga cga aga cct cct caa ggc agt cag act 192
Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Gln Gly Ser Gln Thr
50 55 60

cat caa gtt tct cta tca aag cag ccc acc tcc caa tcc ccg aca ggc 240
His Gln Val Ser Leu Ser Lys Gln Pro Thr Ser Gln Ser Pro Thr Gly
65 70 75 80

ccg aag gaa tag 252
Pro Lys Glu

<210> 10
<211> 83
<212> PRT
<213> Aids-associated retrovirus

<400> 10

Met Glu Pro Val Asp Pro Arg Leu Glu Pro Trp Lys His Pro Gly Ser
1 5 10 15

Gln Pro Lys Thr Ala Cys Thr Asn Cys Tyr Cys Lys Lys Cys Cys Phe
20 25 30

His Cys Gln Val Cys Phe Ile Thr Thr Ala Leu Gly Ile Ser Tyr Gly
35 40 45

Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Gln Gly Ser Gln Thr
50 55 60

His Gln Val Ser Leu Ser Lys Gln Pro Thr Ser Gln Ser Pro Thr Gly
65 70 75 80

Pro Lys Glu

<210> 11
<211> 20
<212> PRT
<213> Aids-associated retrovirus

<400> 11

Met Glu Pro Val Asp Pro Arg Leu Glu Pro Trp Lys His Pro Gly Ser
1 5 10 15

Gln Pro Lys Thr
20

<210> 12
<211> 20
<212> PRT
<213> Aids-associated retrovirus

<400> 12

Ala Cys Thr Asn Cys Tyr Cys Lys Lys Cys Cys Phe His Cys Gln Val
1 5 10 15

Cys Phe Ile Thr
20

<210> 13
<211> 16
<212> PRT
<213> Aids-associated retrovirus

<400> 13

Gln Val Cys Phe Ile Thr Lys Ala Leu Gly Ile Ser Tyr Gly Arg Lys
 1 5 10 15

<210> 14

<211> 15

<212> PRT

<213> Aids-associated retrovirus

<400> 14

Ser Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Gln
 1 5 10 15

<210> 15

<211> 16

<212> PRT

<213> Aids-associated retrovirus

<400> 15

Arg Pro Pro Gln Gly Ser Gln Thr His Gln Val Ser Leu Ser Lys Gln
 1 5 10 15

<210> 16

<211> 16

<212> PRT

<213> Aids-associated retrovirus

<400> 16

His Gln Val Ser Leu Ser Lys Gln Pro Thr Ser Gln Ser Arg Gly Asp
 1 5 10 15

<210> 17

<211> 14

<212> PRT

<213> Aids-associated retrovirus

<400> 17

Pro Thr Ser Gln Ser Arg Gly Asp Pro Thr Gly Pro Lys Glu
 1 5 10

<210> 18

<211> 15

<212> DNA

<213> Aids-associated retrovirus

<400> 18

atggcaggaa gaagc

15

<210> 19
<211> 15
<212> DNA
<213> Aids-associated retrovirus

<400> 19
ctattccttta gttcc

15

<210> 20
<211> 15
<212> DNA
<213> Aids-associated retrovirus

<400> 20
atgggtggca agtgg

15

<210> 21
<211> 15
<212> DNA
<213> Aids-associated retrovirus

<400> 21
tcagcagtc ttgta

15

<210> 22
<211> 15
<212> DNA
<213> Aids-associated retrovirus

<400> 22
atgggtgcga gagcg

15

<210> 23
<211> 15
<212> DNA
<213> Aids-associated retrovirus

<400> 23
ttattgtgac gaggg

15

<210> 24
<211> 15
<212> DNA
<213> Aids-associated retrovirus

<400> 24
atgtggcccc ctggg

15

<210> 25
 <211> 15
 <212> DNA
 <213> Aids-associated retrovirus

<400> 25
 ttaggaagca ttcag 15

<210> 26
 <211> 15
 <212> DNA
 <213> Aids-associated retrovirus

<400> 26
 atgagaattt cgaaa 15

<210> 27
 <211> 15
 <212> DNA
 <213> Aids-associated retrovirus

<400> 27
 tcaagaagtg ttgat 15

<210> 28
 <211> 15
 <212> DNA
 <213> Aids-associated retrovirus

<400> 28
 atggagccag tagat 15

<210> 29
 <211> 15
 <212> DNA
 <213> Aids-associated retrovirus

<400> 29
 ctattccttc gggcc 15

<210> 30
 <211> 27
 <212> DNA
 <213> Aids-associated retrovirus

<400> 30
 ggcccgaagg aaatggcagg aagaagc 27

<210> 31

<211> 27
 <212> DNA
 <213> Aids-associated retrovirus

<400> 31
 ggcccgaagg aaatgggtgg caagtgg

27

<210> 32
 <211> 27
 <212> DNA
 <213> Aids-associated retrovirus

<400> 32
 ggcccgaagg aaatgggtgc gagagcg

27

<210> 33
 <211> 27
 <212> DNA
 <213> Aids-associated retrovirus

<400> 33
 ggcccgaagg aaatgtggcc ccctggg

27

<210> 34
 <211> 27
 <212> DNA
 <213> Aids-associated retrovirus

<400> 34
 ggcccgaagg aaatgagaat ttcgaaa

27

<210> 35
 <211> 24
 <212> DNA
 <213> Simian immunodeficiency virus

<400> 35
 ttaggctacg acccggcgga aaga

24

<210> 36
 <211> 24
 <212> DNA
 <213> Simian immunodeficiency virus

<400> 36
 ataggggtg cagccttctg acag

24

C1
crancid